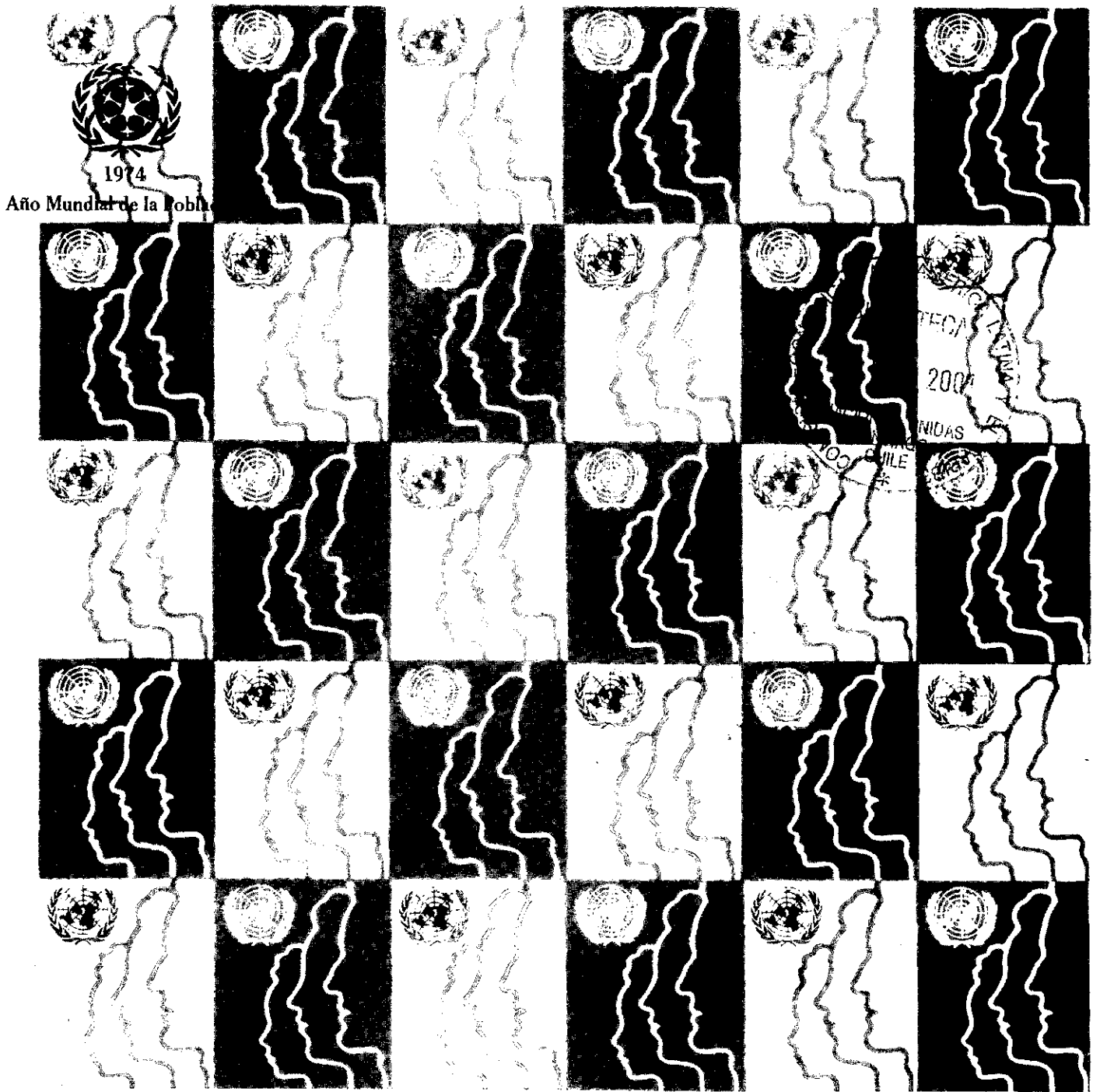


DEVELOPMENTAL MEASURES LEADING TO A DECLINE IN FERTILITY IN UNDERDEVELOPED COUNTRIES OF LATIN AMERICA: THE CASES OF BRAZIL, CHILE AND CUBA

Gerardo González-Cortés



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(Revised version on the paper presented to the
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INTRODUCTION

The aim of this document is to analyse various strategies and programmes for development in their relation to population policies. From the broad field of study offered by these policies, we will take into account only those factors which both constitute a means for development and at the same time would produce a reduction in fertility. The analysis will not be carried out at a purely theoretical level, by imagining or inventing in a historical vacuum, possible courses of action; on the contrary, it will take into consideration actual economic, social and political conditions presented by three countries of the region, at a given moment of their historical development. We will start from their development strategies, so we can see within each political context the demographic effects which may be expected from the implementation of those strategies, and the possibilities they open up for the inclusion of Population Action Programmes (PAP). 1/

Brazil, Chile, and Cuba were chosen because these three countries are orienting their development policies with different strategies and in different political contexts. Brazil, with a strong military-based government and practically non-existent political parties, places emphasis on the promotion of economic growth through the application of a neo-capitalist development model. Chile, on the other hand, adopts a strategy of transition towards socialism, with special emphasis on redistributive policies and increasing control of the economy by the state. This transition is attempted by maintaining a democratic political system, with a multi-party system and periodic elections. Lastly, Cuba corresponds to a socialist political and economic model, now quite consolidated after fourteen years of revolution, with a political system of mobilization, 2/ a one-party system, high political stability and a state-controlled and centrally planned economy.

Before discussing PAPs in the context of the development policies of these three countries, it is necessary to outline the frame of reference in which the analysis will be made. This will include, first, the enunciation of some basic concepts on population policies which make clear the author's position in this regard; second, a theoretical outline of the factors determining reproductive behaviour, which is a prerequisite for the postulation of the influence of given actions (PAP) on fertility as a dependent variable; and, finally, a brief comment on some socio-economic and demographic characteristics of the countries of the

1/ For the purposes of this document, Population Action Programmes are defined in the terms proposed by the organizers of this workshop in the "aide-memoire" of 3 April 1972: "Programmes, alternative or supplementary to family planning programmes, which might have the simultaneous effect of accelerating the process of development as well as of moderating fertility".

2/ See David E. Apter, "System, Process and the Politics of Economic Development", in Industrialization and Society, Bert F. Hoselitz and Wilbert E. Moore (eds.), UNESCO - Mouton, 1963.

region which would permit comparisons among them. At the same time, some important differences between Latin America and other underdeveloped regions will be noted, as they influence the content and relative importance of eventual population policies.

This brief analysis will permit the identification of the probable role to be played by population policies in development strategies, and the context in which the eventual PAPs which are proposed for the countries of the region should be placed.

1. THE FRAME OF REFERENCE

1.1 Population and development policies. The definition of population policy has been the subject of much discussion in Latin America. The majority of definitions ^{3/} which have been proposed are evidently normative in nature, that is, they express what a population policy should be, in their author's opinion. Although these normative propositions do not wholly coincide in all their elements, they have in common certain basic assertions which should be pointed out. These are as follows:

- A population policy exists when, proceeding from a passive attitude in which population phenomena are considered as parameters, an active attitude is taken and an attempt is made to control or influence the behaviour of population variables;
- This control or influence should obey decisions taken by the public sector;
- The variables to be influenced are ultimately volume, growth, structure, movement and geographical distribution of the population;
- The goals of a population policy and the means chosen to implement them should be consistent with and subordinated to the aims and objectives of economic and social development;
- Hence, an adequate population policy should be formulated within the context of global planning.

^{3/} In relation to Latin America, see Unión Panamericana, Reunión sobre Políticas de Población en relación al Desarrollo en América Latina, Bases de acuerdo del Seminario Preparatorio (Feb. 1967), Doc. UP/Ser.H/V/REPO/1/18, N°. 9, and Informe Final (Sept. 1967), Doc. UP/Ser.H/V/REPO/II/17, p. 7; Carmen A. Miró, "Política de Población, ¿Qué? ¿Porqué? ¿Para qué? y ¿Cómo?", Conferencia Regional Latinoamericana de Población, Mexico, Aug. 1970; Roger Vekemans, "Políticas de Población: esbozo de status questionis", document presented to the Seminar on Population Politics in Latin America, Caracas, Aug. 1970, Conferencia Regional Latinoamericana de Población, doc. S.6/35.

Let us stop briefly to discuss some of these assertions.

First, it should be mentioned that the field of population policy is confined to goals of a quantitative macrosocial nature, that is, referring to the probable magnitude and growth of the population, its structure, movement, and spatial distribution. Frequently, as it happened at the Meeting on Population Policies in Relation to Development in Latin America, organized by the OAS (Caracas, 1967), ^{4/} definitions have been proposed which fail to establish what is specific to a population policy, confusing it, when the horizon of its goals is expanded, with a labour policy, an educational policy or a family policy. In my opinion, what is specific to a population policy is determined in the first place by its global goal which may be succinctly described as a demographic rationalization.

By thus limiting the field to be influenced by the policy, several consequences of theoretical and practical significance arise. First, due to the very nature of the variables it is desired to modify, the goals proper to a population policy cannot be considered as valuable in themselves, but only as acquiring value to the extent that they contribute to the achievement of development goals. Second, this clear delimitation of goals, which permits a differentiation between population policy and other sectorial policies as regards objectives pursued, cannot be postulated in the same fashion with regard to means. On the contrary, population policy tends to be confused with other sectorial policies in this respect. Thus, because of the vary nature of the variables one attempts to influence, a population policy necessarily interacts with and expresses itself in concrete actions through other sectorial policies (health, education, industrialization, agrarian policy, etc.). In this sense, it should not be considered as just another sectorial policy, but rather as a dimension of global development policy. ^{5/}

This dependence upon other sectorial policies is made evident on briefly reviewing the various factors which may influence fertility, such as a legislation on marriage which influences age at marriage; social security systems (which rewards or punishes large families); educational and labour systems (which affect the

^{4/} The definition proposed in that Conference (see note ^{3/}) was as follows: "... a population policy must be understood as a coherent set of decisions, which institute a rational strategy adopted by the public sector, in accordance with the needs and aspirations of society, for the development, maintenance and use of human resources, influencing the probable magnitude and growth of population, its age distribution, the constitution and composition of the family, the regional or rural-urban distribution of the people and their incorporation into the labour force and education, aiming to carry out the goals of economic development and to make possible the participation of the people in the responsibilities and benefits of progress".

^{5/} A broader presentation of these concepts can be seen in Gerardo González C., "Políticas de Población y Marginalidad Social", Doc. S.6/13.

child's economic and social significance and influence female labour force participation), etc. For this same reason, numerous programmes or actions whose main objective is non-demographic in nature, such as agrarian reform, literacy programmes, maternal and child health programmes, etc., may bring out demographic effects. In many cases these side-effects are not sought, or even anticipated. They constitute what Spengler called an "implicit population policy". ^{6/} However, these are not population policies proper, but rather demographic side-effects resulting from the application of economic or social policies.

In my opinion, the consideration of these demographic effects should constitute the first step towards the formulation of population policies.

Another normative aspect about which there is a certain degree of consensus -as we have already pointed out- is that the objectives of a population policy and the means chosen should be consistent with and subordinated to development goals and objectives. Since there are different development models with their own strategies and based on different political ideologies, it is necessary to define the notion of demographic rationalization proposed as the ultimate goal of a population policy. In this situation of diversity, demographic rationalization may be defined as the maximum approximation attainable by population structure and processes to the optimum demographic conditions for the implementation of a given political project in a concrete historical situation. For this reason, one cannot speak of a population problem as such, since a given population structure or behaviour may have different and even opposite meanings for different political actors, according to the characteristics of their political project and to the historical circumstances in which they attempt to put it into effect.

In agreement with what has been expressed so far, if we wish to provide an operational definition we may say that a population policy exists when the public sector makes decisions with regard to the implementation and attainment of goals in relation to population growth, structure, mobility, and geographical distribution; that is, when these decisions are deliberately aimed at influencing demographic variables either as the main effect, or as an anticipated side-effect.

If in addition we accept, from a normative viewpoint, that this policy should be subordinated to the general development policy and that the latter will be adequately achieved only if it is elaborated within the context of global planning, we may conclude that in the course of formulating a population policy it would be necessary to provide an answer to the following series of questions:

1. What are the foreseeable demographic effects resulting from the application of development strategy X in that nation?
2. Is the demographic behaviour resulting from the implementation of X favourable, indifferent, or unfavourable to the achievement of the proposed development goals?

^{6/} Spengler, Joseph J., "Socioeconomic Theory and Population Policy", in Population Theory and Policy, Spengler and Dudley Duncan (eds.), The Free Press of Glencoe, 1956, pp. 456-461.

3. Depending on the answers to the above questions:

- what would be the objectives and goals of a population policy which attempts to be consistent with development strategy X?
- is it desirable to strengthen or offset the demographic effects which might derive from the application of X?
- what changes may be introduced in the concrete programmes proposed under X in order that their demographic effects come nearer to achieving population goals adopted?
- what supplementary actions should be applied?
- what is their efficacy?
- what is their political and administrative feasibility?
- what is the cultural and ethico-juridical acceptability of these measures?

The discussion of PAPs hinges precisely on these last five questions, but undoubtedly it requires that the previous ones should be considered beforehand.

1.2 Some elements for a theoretical framework. We will start with the assumption that reproductive behaviour is not directly controllable, unless recourse is had to highly coercive methods, such as, for example, compulsory sterilization or the use of sterilizing substances in drinking water or in food, as has been suggested by some authors. ^{7/} Measures of this nature, of a highly questionable ethico-juridical acceptability, have no political viability whatsoever in Latin America.

On the basis of this assumption, we may say that any attempt to modify reproductive behaviour requires an action on the factors which condition it or which in some manner influence it. The discussion of possible PAPs therefore demands the acceptance of a theoretical framework in which a system of relationships is proposed between reproductive behaviour and the factors on which it depends.

In view of the necessarily limited length of this presentation, I will give only a brief outline of the principal theoretical postulates which will subsequently orient the analysis.

1.2.1. Socio-cultural conditioning: The central hypothesis is that the reproductive behaviour of a given social community is a function of its economic and social structure. When this structure remains relatively stable over time, this hypothesis may be specified by saying that the reproductive behaviour of a given community responds to cultural patterns which tend to be functional both at the microsocial level of the family, and at the macrosocial level of the community

^{7/} See Bernard Berelson, "Beyond Family Planning", in Studies in Family Planning, No. 38, Feb. 1969. Measures of this nature have been proposed by Chandrasekhar, K. Davis, M. Ketchel, and others.

as a whole. In other words, the hypothesis proposed is that each type of economic and social formation has its own population law.

This hypothesis becomes complicated when social change processes are considered both within the structure and of the structure itself. From this viewpoint, and according to the theory of demographic transition, two types of relatively stable socio-economic configurations can be distinguished: an initial configuration in which high fertility is functional, and a final one in which low fertility is functional.

In the first type of configuration, the cost of an additional child is small in view of the economic gain of his working at an early age and his participation in household tasks; the extension of the kinship network is an important factor for social and economic security and power; children perform the functions of caring for and protecting their parents in their old age, etc. Moreover, the family performs a series of economic and social functions which mainly occupy women, this domestic work being compatible with the demands of their role as mothers.

In the final socio-economic configuration, on the other hand, a small number of children is more functional than a larger one for the satisfaction of family needs and the fulfilment of the couple's aspirations. (The term "functional" will be thus defined in terms of family satisfaction throughout this paper). This type of configuration shows, among other features, a high percentage of urban population, the growing influence of urban culture over that of rural areas, the universalization of primary education, the transfer of many of the economic and social functions of the traditional family to extra-familial institutions, the trend towards a decrease in the differentiation between the roles of the sexes, with an increasing participation of women in extra-domestic work, in professional training and in politics, union affairs, the arts, sports, etc. Under these circumstances, the cost of an additional child is high, quality (education, professional training, etc.) of the children is more important than quantity, and there is a decrease in the social importance of kinship networks.

The decline in mortality undoubtedly plays an important role in transition, especially because it permits, with a lower fertility, the attainment of the same final family size. However, the decisive factor for the initiation of a general reduction of fertility seems to be a change in the socio-economic configuration leading to a reformulation of the reproductive behaviour patterns with a period of transition and adjustment.

An habitual sexual behaviour with no contraceptive practice and with the expectation and acceptance of pregnancy, if this takes place, corresponds to the first type of configuration, where high fertility is functional for the couple. This type of behaviour will be called non-controlled in this paper. Sexual behaviour implying habitual contraceptive practice or recourse to abortion as an anticipated solution, corresponds to the second type of configuration. This type of behaviour will be called controlled.

1.2.2. Notion of threshold: Another theoretical assumption in close connection with the above, orienting the analysis, is as follows: gradual change in social and economic conditions does not necessarily lead to an equally gradual and correlative change in reproductive behaviour. This latter begins to take place in a generalized manner only when changes of a social and economic order have exceeded certain thresholds. It is to be expected that only when the supra-threshold socio-economic conditions have been created will it be possible to induce the passing from non-controlled to controlled behaviour, through the introduction of exogenous factors (for example, family planning programmes).

Undoubtedly, it is extraordinarily difficult to determine even approximately the threshold for a given community. However, the following may be adopted as a working hypothesis: supra-threshold conditions may be said to exist when an important decrease in mortality has taken place, when a high number of children has become dysfunctional for the family, as a result of changes in the socio-economic configuration, and when women have exceeded a certain minimum educational level necessary for the understanding and adequate use of contraceptive techniques. This latter factor varies according to the type of method available.

1.2.3. Structural heterogeneity: This concept is particularly valid in Latin American countries, and may likewise be applied to other underdeveloped regions. The concept of structural heterogeneity refers to the coexistence within the same country, with a variable degree of interaction, of economic and social patterns which historically correspond to successive stages in the process followed by developed countries. Structural heterogeneity also manifests itself in reproductive behaviour. From this point of view, it is possible to distinguish schematically three types of social sectors in Latin American societies:

- urban, modern, integrated sectors with controlled reproductive behaviour and low fertility levels;
- some rural sectors where socio-economic patterns of a pre-capitalist nature subsist, generally showing non-controlled reproductive functional behaviour; and
- some rural sectors and particularly urban marginal sectors, where a non-controlled dysfunctional reproductive behaviour predominates.

1.2.4. Training, motivational, and situational factors: Social, economic, and cultural factors have an influence in determining which form of reproductive behaviour will be adopted, either by training individuals to carry it out (know-how), or by motivating them, or by creating the necessary material conditions for the attainment of such a behaviour. In the analysis emphasis will be placed on motivational factors, meaning those social or economic factors which form the basis of motivational processes guiding reproductive behaviour.

1.2.5. Motivational factors of low fertility: In describing some of the features of the socio-economic configuration where a high fertility is dysfunctional, mention has already been made of motivational factors. Following the subject areas in the provisional agenda, it is proposed, as a working hypothesis, that factors of

a social and economic order may be motivational factors for controlled behaviour oriented towards a small family, to the extent that they influence:

- (1) that it is quality and not quantity of children that contributes to satisfaction of family needs and the attainment of the couple's aspirations;
- (2) that relations between the couple become modernized and that the status of women is raised;
- (3) that extra-familial and extra-domestic fields of activity become open to women and that their interests are oriented toward these fields.

The sub-hypotheses which may be derived from the postulates made so far are innumerable. Some of these will be proposed in the context of the analysis itself.

1.3. The Latin American situation:

1.3.1. Some socio-economic and demographic characteristics: Table 1 shows some data for ten Latin American countries representing the wide range of existing situations. The analysis of these data shows the noticeable differences between countries in the region. At the pole of underdevelopment are countries such as Bolivia, with a low level of urbanization (in comparison with the average in the region), a low level of production per capita, a high percentage of illiteracy, and which, in the population aspect, have not attained a very rapid growth rate, due principally to the persistence of relatively high mortality rates. Argentina, at the other extreme, is a good example of those countries with a higher relative development in the region. From a socio-economic viewpoint, it shows opposite characteristics in relative terms to the ones we have just mentioned for Bolivia. With regard to population, its growth rate is moderate, as a result of a relatively low birth rate. While countries like Bolivia are still very close to the type of configuration that leads to non-controlled reproductive behaviour, Argentina is closer to the type of configuration where controlled behaviour is generalized. However, due to the internal structural heterogeneity of these countries, averages indicating the predominant situation conceal the diversity of types of reproductive behaviour we have typified under 1.2.4.

Structural heterogeneity is one of the central characteristics of the economic and social structure of every country in Latin America with the exception of Cuba in the past few years. We will only describe briefly some data on the noticeable inequality of income distribution, one of its most dramatic effects.

Table 2 speaks for itself. However, it should be taken into account that these are aggregate data for the region as a whole, and thus conceal the even more noticeable differences when comparisons are made inside each country, or between relatively more developed regions and the more underdeveloped regions. The case of Brazil is very illustrative in this respect. As shown in Table 3, while the rich regions of the South and part of the Eastern region (more or less 50 per cent

of the income units) contain only 19.8 per cent of the group with the lowest income, the poorer regions located in the North East and part of the East, contain 76.2 per cent of this category (which has an average annual per capita income of approximately US\$50.-).

1.3.2. Population policies and development policies in Latin America: The rates of population increase predominating in Latin America during the past decade, particularly in the Central American countries (3.4 per cent in 1971), and in Tropical South America (3.0 per cent in 1971), have been at the regional level the highest in the world. However, only a few of the countries with a more rapid increase such as Costa Rica (3.8 per cent), the Dominican Republic (3.4 per cent), and Colombia (3.4 per cent) ^{8/} have defined population policies in an explicit manner, with the aim of decreasing births through the diffusion of family planning.

The dominant attitude in political spheres of Latin American countries is that of not considering rapid growth of the population as an obstacle of the first order to development. Hence, the most common stand among the Governments is to consider an eventual population policy aimed at decreasing births only as a supplementary action in the development process, which has non-demographic factors as its main basis. In several cases, government family planning programmes have been justified not by their foreseeable demographic effects but by the development value implied by the practice of responsible parenthood, or by advantages of a medico-social nature (fight against abortion). ^{9/}

This attitude, noticeably different from those adopted in other underdeveloped regions, particularly in some countries of Asia, such as India, Pakistan, or China, is, in our opinion, a result of the differences of a demographic and economic nature between those countries and their Latin American counterparts, which make the problem of rapid population growth relatively less serious and less urgent in Latin America. Considering three important indicators (see Tables 4 and 1), we can see that, in general, population density in Latin America is considerably lower than in the above-mentioned countries of Asia, and that per capita output and the degree of urbanization are considerably greater.

^{8/} Population Reference Bureau, *Cifras de Población Mundial*, 1971.

^{9/} Recent statements by President Echeverría of Mexico may serve as an example of the first point. Shortly after the official announcement about the initiation of a government programme for family planning, the President had the following exchange with the press: "Q: Mr. President, does this mean that sooner or later Mexico will have birth control? A: No, not at all. The Health and Assistance Department has designed a completely different thing, which is closely related to free, although responsible, parenthood". In the interview President Echeverría added later, "... the problem of Mexican development is not in its demographic growth rate, but in its rate of economic growth, which can only be achieved through the coordinated and rational effort of both the public sector and all the sectors of the population" (Excelsior, 4/29/72).

In view of the demographic and socio-economic situation and the kind of attitude predominating among governments, it would appear desirable to explore or imagine for the case of Latin America, PAPS consisting principally in development programmes which would yield in addition a desirable demographic effect. Evidently, the possibility is not excluded of some PAPS in which the main effect is demographic and which also contribute positively as a side-effect to other development aspects.

1.3.3. Towards a strategy: If a decrease in fertility is proposed as an objective of a population policy, background information and the theoretical framework previously discussed provide the basis for the following considerations with regard to strategy:

First, the strategic objectives are those rural sectors inserted in pre-capitalist socio-economic formations which maintain functional non-controlled behaviour, and the urban marginal sectors, which maintain non-controlled behaviour which has become, on the contrary, dysfunctional. The strategies to be followed with regard to these two sectors should be different. For the first, structural changes will be required, producing the supra-threshold conditions necessary for the generalization of controlled reproductive behaviour leading towards a small family. In the second case, supra-threshold conditions are given, at least in relation to motivational factors, and what will mainly be required is an action on training and situational factors, in order to bring about a change in behaviour which, because it has become dysfunctional, may be easily modified.

Second, in regard to means, action programmes, or measures implying direct motivation (for example, rewards in cash or in kind to persons who become sterilized, as applied in India), or of a coercive nature, at present lack ethico-juridical acceptability and political viability in the countries of the region, a situation which is not likely to be modified in the short or medium run.

2. DEVELOPMENT MEASURES LEADING TO A DECLINE IN FERTILITY

2.1. Brazil

Brazil is the largest country in Latin America with regard to area (8,512,000 sq. kms.), and to population (see Table 1), which is primarily located on the coastal fringe. The principal urban centres are in the southern and eastern regions, among which Sao Paulo stands out because of its economic and demographic dynamism.

From the political point of view, Brazil is a federal state, with a strong central government. In 1964, Joao Goulart, a moderately leftist President, had to face a revolt headed by the military, who seized power and established a government which they themselves called revolutionary. The objective of this revolution was defined in the following terms: "... to provide the country with the political, administrative, juridical, social and economic structures capable of building Brazil into a developed, democratic and sovereign society, thus ensuring its viability as a

great power". 10/ From 1964 to 1972 three governments have succeeded each other -those of Castello Branco, Da Costa e Silva, and at present that of Garrastazá Medici- with continuity of programme and political style.

In the economic aspect, the military government has achieved a rapid growth. The growth rate of the gross national product, which in the period 1961-63 had been an annual 3.4 per cent -barely higher than the natural increase of the population- rose to an annual average of 5.5 per cent in the period 1964-68, and to the remarkable level of 10.4 per cent in the period 1969-71. Distribution of income, however, has become even more unequal, as will be shown elsewhere.

The Brazilian Government has maintained during the past few years a distrustful attitude towards pressures urging it to adopt a population policy leading to birth control. In a document by the President of the Republic defining goals and bases for government policy, the following position is adopted in this regard: "Respecting population growth, it is not incumbent on the State to take upon itself the question of birth control, which should remain the responsibility of the family unit. For the country it is still possible to develop a population policy aimed at utilizing demographic potential in favour of development, without losing sight of the implications of the demographic factor on the growth process, particularly: a) with regard to the needs of greater social investments resulting from the high rate of demographic expansion in Brazil (even if national population density is low) and from the high percentage of population under 15 years of age; b) with regard to the limited labour force participation rate; and c) with regard to the inadequate geographical distribution of the population, leading, in certain cases, to an excessive concentration of the population in areas with few physical resources". 11/

2.1.1. Development Strategy: 12/ The present Government has maintained the synthesizing objective of the revolution of transforming Brazil into a "great Power", and the aspiration that it should become an integral part of the developed world before the end of the century. 13/ About these axes the development plan is defined, priorities are set and criteria of action are adopted. For the Brazilian Government, achieving this goal and developing this "national project" is not only a matter of ambition, but a problem of historical vocation with regard to "... its responsibilities in relation to the hemisphere, to the underdeveloped world and to the Christian Western world in which it is integrated". 14/

10/ Metas e Bases para a ação de Governo, published by the Office of the President of Brazil in September, 1970, p. 4.

11/ Ibid.

12/ The basic document is Metas e Bases para a ação de Governo (see note 10/) where the lines and goals for the development plan 1969-73 are presented. A complementary document has been used, Plan 1972-1974 (December, 1971), published one year later (December 1972). Quotations are from Metas y Bases, pp. 5 and 9.

13/ Metas e Bases para a ação de Governo, op. cit., p. 5.

14/ Ibid., p. 9.

The strategy of the present government is based on the recent past and is defined as a third stage "consolidating and enlarging" the fundamental conquests of the first and second governments of the Revolution (governments of Castello Branco and Costa e Silva). To this third government falls "the taking of important steps towards the objective of eliminating the difference between the level of the physical inheritance (territory) and the economic dimension of the country; and in that way, during its period, to spur Brazil towards the plenitude of accelerated and self-sustained development, effectively leading it at the same time towards a relative stability of prices in a climate of security and of social and political stability. In this last area a realistic effort towards a progressive evolution will be made, in the sense of building a politically open society, reconciling the need of accelerating development with maintaining liberties and with the greatest possible degree of participation of private initiative and of decentralization of economic activity". 15/

At the level of diagnosis, the "technological hiatus" between developed and underdeveloped countries is considered as the main cause of underdevelopment. With a view to overcoming this hiatus and its consequences in terms of competitiveness in the international market, the strategy gives priority precisely to developing what is most developed. Consequently, its means or immediate objectives are defined as:

1. "to modernize the more developed nucleus of Brazilian society";
2. "maximum utilization of human resources";
3. "to take advantage for national development of the country's continental dimension through a strategy promoting progress in new areas and the occupation of empty spaces, without compromising the rate of growth set as an objective for the developed nucleus, nor the total product of the country". 16/ (Author's underlining.)

The emphasis, already placed since 1964 on developing what is most developed, has had, as a consequence, together with economic expansion, an increase in internal structural heterogeneity and a resultant marginalization. 17/ We will stop briefly to review this subject, in view of its importance for the estimation of the probable influence of the development strategy on fertility.

15/ Ibid., pp. 6-7.

16/ Ibid., p. 10.

17/ C.M. Tavares and J. Sierra, in an interesting study of Brazil, concluded: "... in this way Brazil has achieved, thanks to its dynamic process of modernization, intensified by its spatial dimension, an unparalleled level of heterogeneity in Latin America (with the possible exception of Mexico), that nevertheless has not hindered its dynamics. High rates of integration, expulsion and marginalization coexist in this process, but they are not contradictory to the expansion. Until now, it has contributed to make difficult the expression, within the process of capitalist expansion, of the violent social and political contradictions generated by the excluding character of the Brazilian capitalist development. Although the economic basis of class conflict has been broadened, the masses have developed very

(Continued on next page)

We have already made use of some data for Brazil (see Table 3) as an example of structural heterogeneity, manifested in one of its effects: the unequal distribution of income between social sectors and between regions. This inequality seems to have become more emphasized during the past few years as a result of an increase in concentration of income (see Table 5) and a deterioration of real salaries. This deterioration, however, would not have led to a decrease in per capita income among the poorer 50 per cent of the population, due to the fact that economic expansion would have permitted a greater absorption of urban labour, increasing the number of working persons per family, and thus maintaining the average level of income of the wage-earning family. 18/ The Brazilian Government recognizes this problem when it makes mention of the "difference between the level of dynamism of the economy after the Revolution and the poor living conditions of important segments of the population, which is expressed in the observation that the economy may do well but a good portion of the people still do badly". 19/

The low living standards of an important part of the people are considered from an ethical point of view. For the Brazilian Government, "one of the two great ethical problems of our time is participation of the masses in the fruits of material progress, made possible by technological revolution in accordance with the principles of social justice which state as their objective the assurance of minimum welfare standards for all social categories". 20/ (Author's underlining)

In the face of this problem the Government has proposed two lines of action: (1) "Improving the distribution of income, to ensure the authenticity and economic and political viability of the expansion process"; and (2) "struggling for the elimination of underdevelopment, with a view to raising living conditions of the country". 21/

(Continued from preceding page)

slowly their capacity to articulate their demands, either because the coercion exercised upon them, or because of their low level of organization. It is also in this sense that Brazil is an exception in relation to other countries in a comparable stage of capitalist development. See "Más allá del estancamiento: Una discusión sobre el estilo del desarrollo reciente en Brasil", en Revista Latinoamericana de Ciencias Sociales, FLACSO, Santiago, Chile, June-December 1971, p. 29.

18/ Ibid., pp. 34-35. See also Fernando Magalhães, "El Perverso Milagro Económico Brasileño", en Panorama Económico, Santiago, Chile, December 1971, No. 265.

19/ Metas e Bases para a ação de Governo, op. cit., p. 6.

20/ Ibid., p. 6.

21/ Ibid.

In the text we have just quoted, criteria and priorities have become apparent. The "authenticity of the process" would appear to be saved by the "assurance of minimum welfare standards for all social categories". The criterion of economic viability leads to thinking of a type of distribution which on the one hand increases productivity and on the other expands the market. And, finally, the criterion of political viability seems to refer to a distribution which diminishes those social tensions which may generate political instability.

Consequently, redistributive policies are defined as a function of the expansion process, and should be either reformulated or sacrificed if they come into conflict with such a process, thereby avoiding any "redistributivist excess which sacrifices the acceleration of the rate of national growth". 22/ They are arranged, on the other hand, in a scheme which is convenient for the system, income being redistributed in favour of urban middle strata, which are the strata which can most contribute to the "economic and political viability of the process". 23/ Marginal sectors, which may be considered as dysfunctional for this development model have no priority; 24/ there is only the tendency to progressively provide them with "minimum welfare standards", for ethical and political stability reasons.

In the plan for 1972-74, the chapter corresponding to social progress and distribution of income poses a new objective not included among Goals and Bases: "... recuperating marginalized populations in rural and urban areas -understanding as such those with very low productivity levels or who have barely the opportunity of obtaining part-time work". 25/ To accomplish this objective, the following measures are proposed:

In rural areas, the transformation into a market economy of the subsistence economy prevailing in the North East and in the North. The transformation of the agrarian economy, the main purpose of which is increasing productivity in this sector, shall be accomplished through credit, price and labour relations. In other words, what is sought is the progressive generalization in the rural areas of the more developed agrarian sector, through the diffusion of agro-industries and of capitalist agrarian enterprises. The policy proposed does not imply important changes in land tenure. Thus, the expansion of the competitive capitalist system, by its own dynamism and given the abundance of manpower and the lack of union organization of the rural sector and their low capacity with regard

22/ Ibid.

23/ Ibid.

24/ See José Nun, "Superpoblación relativa, ejército industrial de reserva y masa marginal", in Revista Latinoamericana de Sociología, July 1969, Vol. 5, No. 2.

25/ Plan 1972-1974, op. cit.

to exerting political pressure, permits the expectation that a rural proletarianization will take place in the short run without a substantial rise in income and living standards.

For urban marginal populations, all measures proposed tend to increase productivity, and consequently income of marginal populations, through the universalization of first grade education, semi-professional training programmes, and the expansion of work opportunities.

With regard to housing, the establishment of a special fund is proposed to cover those families with incomes lower than at present covered by the financial system for housing.

In general, measures proposed, although tending to achieve "minimum welfare standards", do not permit the expectation that they will significantly diminish social distance between marginal sectors and those integrated into the system.

The sectorial policies which we will now examine reflect the general strategy we have analysed.

2.1.2. Education: Goals proposed in the 1970-74 plan favour secondary and higher education, which would have an enrollment expansion of 100 per cent and 90 per cent, respectively. For primary education, a 35 per cent increase in enrollments is anticipated, the rate of school enrollment increasing for this level from 73 per cent (1970) to 80 per cent (1974). 26/ In 1976 this rate would rise to 95 per cent in the urban areas and 80 per cent in the rural area. 27/ If these goals are attained and a decrease in school drop-outs is accomplished, increasing the retention rate which was only 25 per cent in 1965 (see Table 1), it is expected that in the long run the marginal rural and urban population will attain supra-threshold levels with regard to education, facilitating the adoption of controlled behaviour.

The adult population has a very low level of education. In 1960, 39 per cent of the population aged 15 and over was illiterate. The plan concerns itself only with the illiterate population aged 15-35, estimated at 8 million in 1970, the goal being set to diminish it to 2 million by 1974. 28/ The agency responsible for implementing this programme is the Brazilian Literacy Movement (MOBRAL), which will establish a national policy and will co-ordinate efforts carried out by the different states, providing technical and financial assistance. The plan indicates that through laws and decrees it will attempt to make the granting of final military service certificates, identification cards, and professional licences conditional on proof of literacy by the interested person. At the same time, it will study the

26/ Ibid.

27/ Metas e Bases para a acao de Governo, op. cit., p. 57.

28/ Plan 1972-1974, op. cit.

feasibility of mobilizing all those not called to military service as well as third-class reservists for the national literacy effort. 29/

Because this programme is oriented to the population ages 15-35 -the most fertile period for women- it may be considered as a PAP, to the extent that it is applied preferentially to women from marginal sectors, providing material that has a modernizing effect. In the rural sectors it may be considered as a necessary programme but not sufficient to bring about a generalized change in reproductive behaviour.

Lastly, mention should be made of the system of Advanced Technology for Education. It will consist in the establishment of a vast national network, especially a television network for mass education. It includes among its objectives permanent education for adults and literacy programmes. Through this plan "the Brazilian educational system will be made ready to carry out the institutionalization of change, in order to incorporate on a larger scale the violent explosion in the rate of scientific and technological progress expected during the next decade". 30/ Through this system, cultural integration at a national level is attempted, reaching rural areas and those areas which are less accessible to conventional mass media. A reception system is mentioned in this project, which leads to the thought that the purchase or use of television sets, which may be connected to the system, will be facilitated for the lower income groups. 30/

In view of the objectives of this programme, it may be considered that the communication message will be deliberately modernizing and critical with regard to the traditional life patterns which may be dysfunctional for the expansion of a market economy in a clearly capitalistic structure. If, in addition, account is taken of its extension even to those rural areas which are most remote from urban centres, it may be expected to contribute to a change in the reproductive behaviour of strategic sectors. Its PAP character may be strengthened by facilitating the extension of reception on the part of strategic sectors and by including in the communication messages referring to sex education, emancipation of women, family planning, etc.

In brief, a rise in the educational level and a certain modernization of social sectors with the highest fertility may be expected from the implementation of these programmes. It is doubtful, however, that such a limited rise (literacy) will be sufficient to exceed threshold levels, particularly in rural sectors, if it is not accompanied by a generalized change in the agrarian economic structure.

2.1.3. Health: One of the goals which stands out in health policy is the development of the maternal and child welfare system. In this field, it is proposed to increase the co-ordination of public and private efforts. More

29/ Metas e Bases para a acao de Governo, op. cit., p. 68.

30/ Ibid., pp. 71-72.

specifically, it is proposed to increase the number of people receiving food aid. In 1970, although 9,500,000 persons required aid, that is, slightly over 7 per cent, the programme aimed to attend only 700,000. 31/

2.1.4. Work and Social Security: One of the main concerns of the Brazilian Government, as has been observed, is increasing productivity through a more adequate technical training of the workers. Efforts to this effect are preferentially oriented toward workers in the industrial sector. With this purpose, the Intensive Manpower Training Programme (PIMPO) plans the training of 450,000 workers in the industrial sector between 1970 and 1973. The programme for the rural sector is more modest, starting only in 1971, with a goal of 40,000 trained workers until 1973. 32/

Nowhere in the plan is the possible incorporation of female workers into the labour force discussed, which is understandable in a development strategy implying a limited absorption of manpower.

With regard to social security for working women, the plan proposes the addition of resolutions assuring the "payment of the salary to which she is entitled to the pregnant female employee during the periods prior to and after delivery". This would be a measure favouring fertility of female workers. 33/

For the rural population it proposes "the gradual extension [of social security] to all rural enterprises, starting with agro-industry, as was the case with the sugar agro-industry, thus constituting an important instrument of integration of the rural population into the market economy". 34/ Social security would thus favour only those workers who would be incorporated into the more modern agrarian economic sector.

2.1.5. Housing: Of the resources allocated in the housing programme, 3 per cent correspond to the rural area, with a goal of 22,000 dwellings during the four-year period 1969-1973; 28 per cent to the popular sector of the urban market (families having incomes of at least one regional minimum salary) with a goal of 220,000 dwellings; 58 per cent to the next higher sector (with income levels between 1.6 and 5.2 minimum salaries), with a goal of 235,000 dwellings; and 11 per cent to the intermediate level (with incomes higher than 5.2 minimum salaries) with a goal of 29,000 units. 35/ From these data it may be concluded that the housing financial system operates with market criteria, marginal sectors (incomes under the legal minimum salary) being, in consequence, excluded in view of their low or non-existent capacity for saving and amortizing loans. For this marginal sector, as we have already pointed out, the 1972-1974 plan proposes the establishment of a special fund.

The possibilities opened by the popular housing programme with regard to influencing fertility will be discussed when these programmes are analysed in the Chilean case.

31/ Ibid.

32/ Ibid., p. 57.

33/ Ibid., p. 222.

34/ Ibid., p. 223.

35/ Ibid., p. 234.

2.2 Chile

Chile presents some peculiar characteristics among the Latin American countries. Its territory -742,000 sq. kms., excluding the Antarctic- extends from north to south for 4,200 kms., and its average width is 220 kms., with a great variety of climates and regions. Its population, approximately 10 million people, is concentrated in the so-called Central Valley, and particularly in the provinces of Valparaíso and Santiago (the capital), where over 50 per cent of the total population is located. In the Central Valley the cities form a chain which leaves few rural areas out of the sphere of influence of an urban centre.

The rate of population growth in Chile is moderate in comparison with other countries of the region. The birth rate has been decreasing at a rapid pace, from 3.4 per cent in 1966 to 2.8 per cent in 1969. Nevertheless, in the last two years a slight increase has taken place, with rates of about 3.0 per cent.

Though Chile has not had an explicit policy of birth control, back in 1965 the National Health Service began to implement a vast family planning programme which has become one of the most developed in Latin America.

Politically, Chile presents a case of stability without precedent in the region. The Chilean political system has experienced a continuous transformation within its institutional framework, especially in the last twenty years, in which political participation has more than trebled and a growing organization of all sectors has been taking place.

Notwithstanding these achievements, Chilean political development has not been accompanied by an accelerated economic growth. On the contrary, the limitations imposed by a stagnant economy have loomed over the growing frustration of the people and the attempts to adapt the political structures to the requirements of economic development. Thus, since 1952 the reform of the system has been the central issue in the political debate and the electoral struggles. Different political coalitions with different strategies -Ibañez's populism, the Right with Alessandri, and the "revolution in freedom" proposed by the Christian Democrats- attempted unsuccessfully to accelerate economic development, despite partial changes introduced for this purpose. Since November 1970, Chile has been going through a new political experiment, the peaceful transition to a socialist system, under the leadership of a coalition whose major parties -Socialist and Communist- have a Marxist ideology.

2.2.1. Development Strategy: The Popular Unity Government has set for itself the goal of initiating a revolutionary process of transition towards socialism. President Allende in his first message to Congress (May 1971) said with reference to this that "Chile is today the first nation in the world called upon to give shape to the second model of transition towards the socialist society ... the first socialist society built according to a democratic model with pluralism and liberty". 36/

36/ "Primer mensaje del Presidente Allende ante el Congreso Pleno", 21 May 1971, p. VI.

The originality of this political project, which attempts to carry out a revolution without an abrupt rupture of the existing legality, is based on the democratic nature of the Chilean political system, which provides a basis for the expectation that political awakening and mobilization of the people will make possible the substitution, through the electoral route, of "capitalist" legality by a new "socialist" legality.

Thus the task that the Government has set for itself is "defining and putting into practice, as the Chilean route towards socialism, a new model of the State, of the economy and of society centred on man, his needs and aspirations". This road implies "instituting social liberties through the exercise of political liberties, which requires as its basis the establishment of economic equality". 37/

Within this political context the National Economic Plan for 1971-1976 has been elaborated and the new strategy has been proposed. The diagnosis on which it is based identifies as the principal problems the extreme concentration of property and of income, the economic and social marginality of an important portion of the population, and the orientation of the economic apparatus towards the preferential satisfaction of the needs of high-income groups. In other words, it maintains that the unequal distribution of income determines the structure of demand and that this in its turn influences the structure of production. 38/ It is asserted that previous Governments had only accomplished partial and reversible improvements because they had not come face to face with basic structural problems.

With regard to this situation, the plan proposed a series of radical changes through which it is sought to affect ways of life, institutional organization and relations of production, thus preparing the way for a "new society". 39/ The structural changes which are proposed refer mainly to property and participation. Through the nationalization of basic industries with a strong component of foreign capital (principally copper), state control of banking, agrarian reform with the liquidation of latifundia, and the transfer of both industrial and commercial monopolistic enterprises to the "social area" (the area of State-controlled property), it is sought to "eliminate imperialistic, monopolistic, financial and land-owning power by creating a strong area of social and mixed property, with the participation of workers in its management, leading to a complete reversal of the most important portion of production towards the satisfaction of the needs of the majority, and at the same time a change in the capitalist relations of production governing these productive sectors". 40/ In addition to the participation of the workers in the management of enterprises, their increasing participation in the benefits of the productive process is sought. Thus the redistribution of income through a significant wage and salary increase for the lower income strata is proposed as one of the top priority intermediate objectives. 41/ It is expected that

37/ Ibid., p. XIV.

38/ Oficina de Planificación Nacional, Resumen del Plan de Economía Nacional, 1971-76, Santiago, Chile, p. 1.

39/ Ibid.

40/ Ibid., p. 2.

41/ Ibid., p. 6.

this redistribution of income will lead to an increase in domestic demand, acting as a dynamic factor in the economy. On the other hand, it is expected that the formation of a "social area" will permit the growing control of surpluses which, through investment planning, will permit the orientation of production towards the satisfaction of the needs of the majority.

The importance ascribed to the short-term redistributive effects in this strategy, in addition to being the expression of the humanist and socialist values which are the basis of the ideologies of the parties composing Popular Unity, responds to the need of maintaining political power in a system which, like the Chilean one, operates on the basis of periodic popular elections.

This redistributive orientation also manifests itself in the objectives and goals for the period 1971-76. With regard to employment and for the purpose of raising the family income of the lower-income strata which have the lowest rates of paid workers per household, 42/ it is proposed to increase the proportion of working women in the female population 15-64 years old from 26 per cent in 1971 to 40 per cent at the end of the six-year period, with special emphasis on the incorporation of women from lower-income households. A second objective is to "improve distribution of national income". To this effect, the plan envisages "an increase in the participation of salaried workers in the distribution of income; from 51 per cent which they obtained in 1970 they will get to control 60.7 per cent in 1976. In contraposition to the above, capital owners and entrepreneurs will decrease their share in the national income from 18.6 per cent to 8.3 per cent during the same period of time". 43/ Finally, in terms of interregional redistribution the objective is posed of "creating a spatially more balanced economy". To achieve this end "the investment plan will be decentralized in order to create new economic activities in the more backward regions. Industries, highways, social and urban facilities will be gradually extended to reach each one of the provinces, thus generating the global development of Chilean economic space, with suitable attention devoted to frontier areas". 44/ As a population policy in this field a decentralization of population growth is proposed, substantially altering trends in traditional migratory flows, requiring the promotion and consolidation of middle-range urban centres (with populations of 20,000 to 300,000) and a deliberate policy aimed at the creation of new settlements. 45/

Let us now consider some of the sectorial policies in the social area through which it is attempted to implement the strategy we have described.

42/ Ibid., p. 16.

43/ Ibid., p. 39.

44/ Ibid., p. 43.

45/ Ibid., p. 445.

2.2.2. Education: The educational policy is formulated on the basis of a new concept, "Education as a permanent process of improvement of all members of society". Planners are aware that to achieve this aim an extraordinary flexibility with regard to methods and content of the educational process is required. Reforms which improve the regular school system are not enough; in addition it is necessary to consider special measures aimed at those persons who, because of the characteristics of the general social system and of the educational apparatus, did not have the chance to receive an education and to be professionally trained. To realize this new concept, the plan proposes five "concrete tasks", among which special mention should be made of the following: (1) eradication of illiteracy; (2) full incorporation of all children into the primary cycle of education (at present 8 years); (3) maximum development of non-conventional educational systems (adult education and training, correspondence courses, television courses, teaching and training at work locations, etc.). 46/ The accomplishment of these tasks will be attempted principally through two programmes; that of primary education and that of adult education.

The goal of extending primary education to 100 per cent of the population aged 6-14 appears to be already almost achieved in 1972. With regard to this, the President of the Republic in a message to Congress pointed out that "measures adopted made it possible to provide primary education to 97.9 per cent of the school population aged 6-14 during 1971". 47/

On the other hand, among the general objectives of the adult education programme, special mention should be made of the following: (1) "To facilitate the incorporation into productive tasks, as well as into political decisions, of wide sectors who have lived on the margin of every economic, social and cultural benefit; and (2) To organize adult education principally as a function of work centres in order to put an end to education unrelated to the type of work and social practice carried out by the subject". 48/ In order to achieve these aims three subprogrammes have been proposed. The first, known as incorporation of the worker into the educational process, aims at eradicating illiteracy and creating the conditions which will enable the working class to obtain a permanent and systematic education. The agency responsible for the execution of this programme is the Jefatura de Educación de Adultos (Adult Education Committee). Goals proposed involve the maximum expansion of the programme in 1972, when approximately 220,000 adults should be absorbed, from then on decreasing until the number absorbed is 31,400 in 1976, its effect being a progressive decrease of illiteracy down to 1 per cent. The second subprogramme is that of primary education for adults. It implies the utilization of regular curricula of three years duration, through the use of special and night schools and primary education centres. According to the goals proposed, this

46/ Ibid., p. 302.

47/ "Primer mensaje del Presidente Allende ante el Congreso Pleno", 21 May 1971, op. cit., p. LXXVI.

48/ Oficina de Planificación Nacional, Resumen del Plan de Economía Nacional, 1971-76, Santiago, Chile, op. cit., p. 347.

programme will be progressively expanded until an enrollment of approximately 318,000 students is achieved in 1976. The third subprogramme has been called "proyecto de nivelación" (rapid training project). It implies the "redefinition and restructuring of the curricula of traditional primary adult education, in order to allow the worker to acquire the necessary knowledge to have an active and conscious participation in the process of the transformation of society, and at the same time the necessary training to continue his studies and acquire professional training, in a shorter period of time than that normally required (2 or 3 semesters)". 49/ Rapid training centres will be established especially in institutions, services, labour unions, etc., through agreements between the Ministry of Education and these institutions. It is also a programme with expanding goals: it begins in 1971 with an enrollment of 3,800, increasing progressively to reach an enrollment of approximately 240,000 in 1976.

The final programme which is of interest within the field of educational policy is that of student aid. 50/ The purpose of this programme is "to assure the community the right of education, guaranteeing that the child enter and stay within the educational system". The principal allocation of resources within this programme is for food, aiming at ensuring good nutrition for the school population. The goal is to increase from 637,800 daily lunches in 1971 to 2,242,100 in 1976. If it is taken into account that primary school enrollment plus secondary school enrollment will be approximately 3,100,000 in 1976, it may be concluded that about 72 per cent of the students will be recipients of this service.

The effects upon fertility which may be expected from the educational policy we have partially described are obvious. The short-term universalization of primary education implies a rise in the level of aspirations of parents with regard to their children (emphasis on the child's quality), less likelihood of economic utilization of the child at an early age, and modernization of parents through contact with the school. In the long run, taking into account that the primary education curriculum includes sex education, it may be expected that the new female cohorts entering their reproductive period will be trained to adopt controlled behaviour. In addition, universalization signifies that strategic sectors with regard to fertility level (urban and rural marginal sectors) will be receiving this educational impact.

It may also be expected that the adult education programme will have a depressive effect on fertility, both because of its magnitude and its deliberate orientation towards marginal sectors.

Adult education programmes may become PAPs to the extent that they are oriented preferentially towards the young female population (15-30 years) in marginal sectors. The rapid training project may have this effect if it is applied through agreements with community organizations such as federations of centres for mothers, where women have a high participation, and if, in addition, it is provided with a modernizing content orienting women towards attitudes of foresight and control and interesting them in work outside the family.

49/ Ibid., p. 334.

50/ Ibid., p. 343.

Finally, the student aid programme, although, on the one hand, it decreases the cost of supporting a child, on the other it is likely to contribute to a decrease in school absences and drop-outs, thus preventing the early utilization of children as workers.

2.2.3. Health: The policy adopted in the Health sector also responds to the general lines described for the development strategy. Health services will be oriented preferentially to the mother and child, and to those sectors which have traditionally been deprived of all assistance, as a rule located in suburban and rural communities. The trend will also be towards a decentralization of activities of the services within national economic space, thus integrating the whole population. The means proposed for the implementation of this policy are, on the one hand, the decentralization and democratization of the National Health Service and, on the other, special programmes, among which great importance is ascribed to maternal-child care programmes.

The child-health programme will give preferential attention to newborns and to infants under one year, setting as its goal a 50 per cent reduction of infant mortality during the six-year period. For the group of children aged 1 to 4, a normal psychomotor, weight and height development will be promoted, furthering in addition better nutritional conditions through programmes carried out jointly with other sectors. 51/

With regard to the maternal health care programme, its objectives "are those of reducing to an important degree maternal and neonatal morbidity and mortality and of improving family welfare conditions, providing health education and services permitting the exercise of a more responsible parenthood. Activities will be aimed at women 15-44 years old". The plan adds elsewhere that "adequate health education will be provided and services will be facilitated in order that every woman may plan the number and timing of her children with the purpose of diminishing certain obstetric and perinatal risks and of trying to eradicate abortion, which causes more than 30 per cent of maternal deaths". 52/ It should be noted that in spite of the obvious demographic impact of a programme of this nature, there is no reference to it in the text of the plan. For the implementation of the maternal-child care programme, the National Health Service has, in addition to its own resources, the aid of the United Nations Fund for Population Activities (UNFPA), which has made a grant to the Government of Chile amounting to US\$1,560,000 for 1973-74, which may be expanded to a total of US\$3,200,000, approximately, for the total period 1973-76. It should be observed that the most important item, equalling approximately 35 per cent of the total, corresponds to contraceptive supplies. 53/

51/ Ibid., p. 351.

52/ Ibid.

53/ Data taken from "Project Agreement between the Government of Chile and the United Nations Fund for Population Activities".

It should be taken into account that the National Health Service offers the whole population free care during the prenatal period, during childbirth, and during the postnatal period, including in addition free family planning services. All the attention provided by the child-care programme, vaccination, and the quota of milk are likewise free.

All the above-mentioned criteria, that is, decentralization of services, priority accorded to marginal sectors, and priority accorded to the maternal-child care programmes including family planning services, lead to the expectation that the sectors receiving the most benefits from a greater supply of health services will be precisely the female population that has traditionally shown the highest fertility level. On the other hand, the placing of family planning services within the wider context of a maternal-child care programme favours contact with those services and increases their acceptability. It is thus to be expected that such a health policy will lead to a decrease in fertility, on the basis of the following hypotheses: (1) that the greater the contact with health services, the greater the probability of passing from non-controlled reproductive behaviour to controlled behaviour; and (2) that the greater the contact with health services, the better will be the health education of the mother, the greater the time she will devote to health and care of her children, and, consequently, the greater her interest in the quality of her child, tending thus to a smaller family.

2.2.4. Social Security: Social security benefits became generalized in Chile a long time ago. Here we will consider only those bearing on family allowances and maternity of working women.

The first law establishing family allowances (1937) benefitted only private employees. In 1945 a new law granted this benefit to public employees, and only in 1953 was it extended to the working class. In general, the dependents eligible for allowances are (providing they receive no income) the wife, legitimate and illegitimate children under 18 years of age, children over 18 and under 23 who follow technical or university courses regularly, and parents over 65 years of age. Allowances corresponding to the wife and children are paid directly to the wife. 54/

In close connexion with family allowances, there exists in Chile the so-called prenatal allowance, for which the insured female worker or the male worker's spouse is eligible. It is equal to a family allowance. It is paid upon presentation of a certificate of pregnancy, with retroactive effect, that is, it is paid for each month of duration of pregnancy. 55/ To this economic benefit is added, for the woman who works, irrenovability from her post during pregnancy and puerperium and the right of leave with full pay for 42 working days prior to the anticipated date of childbirth and 42 days after childbirth. The present Government has presented a bill extending post-partum leave to three calendar months, in order to ensure the care of the new-born.

54/ See A. Bowen, Introducción a la Seguridad Social, Ed. Nueva Universidad, U.C. Santiago, Chile, 1971, pp. 73-76.

55/ Ibid.

The six-year plan proposes in this field the extension of these services to the whole population and their standardization, in order to overcome the pattern of discriminatory protection afforded to certain sectors of workers and employees.^{56/} With regard to specific projects, mention should be made here of the project to standardize family allowances, signifying a substantial improvement in the amount of family allowance paid to urban and rural workers, and that to extend social security to independent workers.

Both the policy of extension and standardization of family allowances and the provisions favouring maternity of the working woman may be considered as pro-natalist factors.

2.2.5. Women in the Labour Force: We have already mentioned that one of the principal goals proposed in the field of employment is increasing the proportion of active women in the female population 15-64 years old from 26 per cent to 46 per cent at the end of the six-year period, with special emphasis on the incorporation of women from lower income households (the lower 60 per cent of households).

All means proposed for facilitating this incorporation act by decreasing the incompatibility between the role of mother and that of worker. These means are the mass establishment of nurseries and kindergartens, facilities with regard to time-schedules and flexibility with regard to work periods.^{57/} With regard to nurseries and kindergartens, it is proposed to "initiate the execution of the programme in urban areas in which are concentrated the largest groups of persons with lower incomes, with the greatest number of children in the age-range in question, and giving preferential attention to children of mothers who work. Human resources to meet the needs of these services are perhaps the main obstacle for their large-scale implementation. Proposed solutions include the incorporation of under-utilized careers, the expanded enrollment of schools for training nursery and kindergarten teachers, and the establishment of a special short career. The project of Compulsory Service for Women, recently announced by President Allende at a popular meeting (25/7/72) is undoubtedly the principal tool.^{58/}

^{56/} Oficina de Planificación Nacional, op. cit., pp. 363-369.

^{57/} Ibid., p. 18.

^{58/} "Furthermore, we sent another bill establishing the compulsory service of women. It is not possible that thousands and thousands of Chilean girls, at this stage of their lives, do not contribute within their capacity to the community. If we want to have kindergartens and nurseries, we need to employ at least 120,000 people to care for the 1.2 million of Chilean children who urgently need these benefits. In the next six months, Chilean girls must begin their contribution for the defence of what is worth most: the children of the people, the future of Chile. I am sure that young Chilean women will answer to this revolutionary challenge with love and enthusiasm. These girls who will be mothers tomorrow will have learned to care for and love their own children, by taking care of the children of workers". President Allende's speech published by OIR, Santiago, July, 1972.

Compulsory Social Service for Women is defined in a document prepared by the Consejería Nacional de Desarrollo Social as "an initiative of the Popular Government benefitting Chilean society as a whole. Particularly, it is a way towards the specific participation of women in national development which in addition attempts to become an instrument collaborating towards their liberation from obligations of a mainly domestic nature to which bourgeois society has relegated them". It then adds with regard to the economic and social significance of this service: "The great social tasks which the Popular Government is carrying out or promoting demand the massive investment of human resources to enable their being carried out with probability of success. The raising of health standards of the population, the decrease in infant mortality and disease, the improvement and expansion of pre-school attention of the child (nurseries and kindergartens), the rapid training of adults, etc., are tasks which require not only the intense and massive effort of government agencies but also, and in a fundamental manner, the commitment and active participation of youth and particularly of women. A poor country such as ours cannot finance the gigantic state bureaucracy implied by the execution of such social tasks". 59/

Social Service has as its goal -according to the bill- to provide Chilean women with health, child, technical, and social knowledge and to promote their co-operation in the attention to or maintenance of nurseries, kindergartens, etc. It is compulsory for all Chilean women over 16 and under 21. It will be done only once, for three months, with a working day of 6 to 8 hours. Those working in the public or private sectors will be entitled to perform this service with special working hours and tasks or services. Those who are students will be authorized to perform the service during their holidays. The sole exception are those women who have children under 12, provided that they exercise a profession or hold a paid job. 60/

We will now discuss the effects upon fertility which may be expected from this policy of female labour. If proposed measures for facilitating female employment are considered in isolation or statically, they might be expected to produce a stimulating effect on fertility. This would undoubtedly be the effect to be expected if these measures were applied in a population with controlled reproductive behaviour where there previously existed a high female participation in the working population. In the Chilean case, however, the programme is aimed principally at the working and marginal urban sectors, where a dysfunctional non-controlled reproductive behaviour still partly subsists. In this context, it may be expected that nursery and kindergarten services will, first, increase the probability that women who work do not give up their jobs after the birth of their first born (which together with marriage seems to be the main cause of giving up work) 61/ and, second, increase the probability that women who already have children will start work, thus experiencing its modernizing effect.

59/ Data taken from the draft of the bill for the Compulsory Social Service for Women (not published).

60/ Ibid.

61/ "Familia y Fecundidad en Poblaciones Marginales", Celap/Troquel, 1970.

In short, it is to be expected that although these measures will facilitate the child-bearing of workers, their main effect will be to increase the percentage of women in the fertile ages who are incorporated into the work force on a permanent basis, and who are ultimately oriented towards a small family. On the other hand, these women will be more exposed to adult education programmes through their labour-unions and places of work, which may contribute to the adoption of controlled reproductive behaviour.

The Compulsory Social Service for Women in this context may be considered as a PAP, both because of the effects it has on the rest of the female population by facilitating their incorporation into the work force and because of the educational effect and the orientation towards extra-domestic and community activities which it may have upon the young women who perform it.

2.2.6. Lower-income Housing: The search for transitory housing solutions permitting the eradication of urban squatter settlements and the building of lower-income dwellings as a final solution was already a top-priority task during the Christian Democrat Government (1964-1970). In spite of the great effort carried out in this field, the present Government began its period in 1971 with an estimated backlog deficit of approximately 585,000 dwellings. Faced with this problem, the Government's position is clear: "... the Government of Popular Unity has recognized housing as an inalienable right; that it is the State's obligation to provide housing for its people; that housing cannot be an object of profit". 62/

Goals proposed consist in covering natural increase (370,000 dwellings) during the six-year period and in achieving a 37.8 per cent decrease in the backlog deficit. 63/ These goals are ambitious and difficult to attain since they imply practically doubling the annual average of square metres built during the previous Government.

In the analysis of the low-income housing programmes we will start with the following hypothesis: the size of dwellings, their distribution and furnishings significantly influence family living habits and hence the desired number of children or the desire for a new child. This general hypothesis may be separated into the following specific hypotheses: the couple will be oriented towards a smaller family --

- the smaller the size of the dwelling;
- the more space distribution favours living over sleeping space;
- the better the furnishings in terms of furniture and home appliances, and
- the less the capacity for expansion of the dwelling (high-rise apartments versus dwellings with plots of ground).

62/ "Tipologías Habitacionales and its application by the Unidad Popular Government through the Corporación de la Vivienda", Corporación de la Vivienda, Sub-Department of Diseño (internal document), p. 6.

63/ Oficina de Planificación Nacional, Resumen del Plan de Economía Nacional, 1971-76, op. cit., p. 370.

If these hypotheses are valid, it may be considered that low-income housing planning may be utilized to effect a decrease in fertility.

Let us now analyse the programme of the Chilean Government from this point of view.

Housing programmes attempt, together with a maximum coverage of the population, the maximum utilization of space, at the same time ascribing great importance to domestic furnishings. The maximum decrease of costs is sought through programming and mass construction of dwellings on the basis of prototype designs. When preparing these programmes account has been taken that "through urban and architectural design the dwelling can become a powerful instrument for accelerating and facilitating development of human and social values". ^{64/} The plan at a national level implies an average size of 62.8 square metres per dwelling, with 12 square metres per dweller. The goals for the urban sector, for reasons of urban remodelling and of costs, favour high-rise construction (270,000 dwellings), over separate dwellings (160,000). In spite of the above-mentioned average area per dwelling, dwelling prototypes which are being built for the eradication of shanty-towns (marginal population) are 36.5 square metres and 38.44 square metres, this latter capable of being enlarged. As a rule, prototypes used for worker housing accommodations do not exceed 57 square metres of built area. Prototypes for high-rise construction correspond to four-storey blocks with a total of 16 independent apartments and to 15-storey towers (prototype 1,050) with four similar apartments per storey.

As an illustrative antecedent, the plan for a 53 square metre apartment is presented in an annex corresponding to block type 1,011. This is a "flexible dwelling in terms of its distribution permitting different modalities of use according to the evolution of the family". The block has been designed for utilization as a high-rise remodelling unit, especially for the eradication of shanty-towns. ^{65/}

If the above hypotheses are accepted, it is to be expected that the programme will be oriented towards a small-sized family in view of the small size of dwellings, the predominance of high-rise construction, and the intention of adequately furnishing them.

This programme can become a PAP if, on the basis of hypotheses proposed, its probable effect on fertility is increased through measures such as:

- size: to give priority to the building of the smaller prototypes (50 square metres or less). This will permit, with the same amount of resources, an increase in the number of dwellings and will accelerate the solution of the housing problem.

^{64/} "Tipología Habitacional", op. cit., p. 7.

^{65/} Ibid., p. 14.

- distribution of space: to divide the dwelling for initial delivery to its occupants in such a manner as to favour living and dining areas. A concrete example may be seen in the apartment prototype 1,011 (see annex). If this apartment is delivered without the partition separating bedroom 3 from the living room, this increases space for the latter, while there is always the possibility of building this partition and of forming bedroom 3, if the occupants deem it necessary.
- furnishings: to facilitate the supply of furniture and home appliances, which requires adequate production (design and large-scale production to diminish costs) and increasing purchasing power. The latter can be achieved as a result of an income-redistributing policy, and with savings systems and popular credit systems.

2.3. Cuba

Cuba jumped into world importance during the late fifties and early sixties, when it suddenly changed its historical course and established through its revolution a socialist regime only ninety miles from the United States. This situation of proximity, confrontation, and breakdown of the strong economic dependence on the United States has marked the Cuban revolution. This revolution began, as Che Guevara stated at the meeting of Punta del Este (1961), as "an anti-feudal and anti-imperialist agrarian reform which, as a result of its internal evolution and of external aggressions, transformed itself into a socialist revolution and Cuba proclaims it so before America". 66/

The task of the revolutionary government at the beginning (1959) was oriented on the economic front towards the solution or relief of grave problems, such as unemployment, by means of the expansion of public works and the utilization of the unused industrial capacity, and that of poverty through redistributive measures such as lowering of rents and electricity rates and the raising of low salaries. The most far-reaching measure was the agrarian reform which attempted simultaneously to increase production (especially exports), to improve the balance of payments, to open new opportunities for work in the countryside and improve the living conditions of the peasantry by taking schools and medical assistance to the rural areas. Agrarian reform assigned land-ownership to over 100,000 peasants, reserving the big farms to be worked with advanced techniques for the State. 67/

66/ Ernesto Che Guevara, address to the OEA Conference of the Economic and Social Interamerican Council, August, 1961; reproduced in E. Che Guevara, Obra Revolucionaria, Mexico, 1961, Ed. Era S.A., p. 421.

67/ See Albán Lataste, "Revolución y Planificación en Chile", in Panorama Económico, October 1969, p. 39. Albán Lataste, Chilean economist, occupied important posts in Fidel Castro's Government, becoming Vice-Minister of National Planning. See also Ernesto Che Guevara, "Cuba: Su economía, su comercio exterior, su significado (1964)", in E. Che Guevara, Obra Revolucionaria, op. cit., p. 619 and following.

The open conflict with the United States begins in 1960: Cuba sells sugar to the Soviet Union in exchange for, among other things, crude oil. U.S. refineries in Cuba refuse to process it. The Government takes them over. The United States responds by suspending the sugar quota thus creating a serious problem of foreign exchange. The answer of the Cuban Government is drastic: It nationalizes all the big industrial, commercial, and banking firms, U.S. as well as Cuban-owned. In this way, the basic conditions for the construction of a socialist economy are created. 68/ In 1961 the United States began the economic war which forced Cuba to shift foreign trade to the socialist countries with a temporary economic upset and the establishment of a communist war economy. 69/ This places emphasis on "the physical and administrative aspects of economic planning and management, relying for efficient management almost exclusively upon such incentives as political morale and the commitment of the masses". 70/

In this context, the rising revolution could be viable to the extent that it had massive popular support. And this support was achieved through a redistributive policy which made tangible the social benefits of the process, and through ideological transformation and political mobilization, the latter task made easier by the close and aggressive presence of the enemy.

The process we have described leads to two courses of action of great impact on reproductive behaviour: urban-rural integration, with emphasis on regional development, and the mobilization of women, with their increasing participation in labour, political organizations, and national defense systems. 71/ We will return to this subject when we discuss the present development strategy and the sectorial policies.

68/ Ibid., p. 40.

69/ The Economics of War Communism is defined by Albán Lataste in the following terms: "Essentially, the task is not military in nature, ... the task posed is much more complex, since, to express it in Castro's words, a new social life must be built for the people, and at the same time the old mode of social production must be exchanged for a new mode of production. And this, under conditions of economic war and foreign military aggression", ibid., p. 38.

70/ Ibid., p. 45.

71/ Che Guevara (op. cit., p. 423) referred to these two subjects in the following terms: "Our country was like this: woman had no type of equalitarian right; she received less pay and she was in all ways discriminated against... the city, the rural areas, were two areas in permanent conflict and from this conflict imperialism drew sufficient labour force to pay badly and not on time. We carried out a revolution in all this". Maxwell Stonper discusses the possible effect of rural-urban integration and mobilization of women on fertility in Cuba in "Some Demographic Consequences of the Cuban Revolution", in Concerned Demography, March 1971.

From a demographic point of view Cuba has a relatively low birth rate as compared with the dominant rates in Latin America (2 per cent per annum; see Table 1). A gradual decrease of births had begun already in the twenties, falling from a birth rate of approximately 4.0 at the beginning of the century to one of approximately 2.7 per cent in the last year of Batista's dictatorship. An equally gradual and sustained decrease in mortality, which stabilized itself at a rate of 0.7 per cent in the fifties, resulted in a relatively stable population growth rate. ^{72/} During the first years of the revolution, the birth rate rose to a maximum of 3.7 per cent in 1962, decreasing slowly afterwards and from 1965 more rapidly, coming to a level of 2.9 per cent in 1967 ^{73/} and 2.7 per cent in 1969. ^{74/}

In Cuba there has not been any family planning program as such, but contraceptives (IUD) are provided and suitable medical attention is given upon the woman's request. Abortion is also permitted by law, when in the doctor's opinion the pregnancy could be a danger to the mother's health. In recent years this law has been interpreted liberally in order to arrest the high frequency of clandestine abortions. Nevertheless, health authorities clearly prefer the use of contraceptives. ^{75/}

2.3.1. The development strategy: "Marx conceived socialism as the result of development. Today for the under-developed world, socialism is a condition for development. If the socialist method is not applied -placing all the natural and human resources of the country at its own service, channelizing those resources in the manner necessary to achieve desired social goals- if that is not done, no under-developed country will overcome its situation of under-development". ^{76/} These are the words of Fidel Castro to the graduates in Economics in December of 1969. Socialism as a method of development is the basic postulate of the strategy. The main economic instrument is central planning. The final goal is "the full liberation of man in the framework of the communist society". ^{77/}

^{72/} Data taken from B. Landstreet, Jr., "Population Theories and Policies in Cuba", in M. Stycos, Ideology, Faith and Family Planning in Latin America, New York, McGraw Hill, 1971, pp. 107-109.

^{73/} Resumen de Estadísticas de Población, No. 2, Havana, Junta Control de Planificación, Dirección Central de Estadística, September 1966; and Salud Pública en Cifras, Havana, 1968, quoted by B. Landstreet, op. cit.

^{74/} 1970 Census Data, commented on by M. Stonper (op. cit.), would indicate a decrease in the absolute number of children born during the four years prior to the Census.

^{75/} See declaration by Dr. Alvarez Lajonchere, reported by B. Landstreet (op. cit., p. 112).

^{76/} Fidel Castro, "Conversación con los egresados del Instituto de Economía de La Habana", 20 December 1969, in Economía y Desarrollo, No. 1, January-March 1970, p. 30.

^{77/} Che Guevara literally said: "... we may, then, say that centralized planning is the socialist society way of life, its defining category and the point in which man's consciousness finally achieves the synthetization and direction of economy towards its goal of full liberation of human beings in the framework of communist society", in "La Planificación Socialista, su significado" (1964), in E. Che Guevara, Obra Revolucionaria (op. cit.), p. 609.

The document on which the discussion that follows is based is the report submitted by the Cuban delegation to the thirteenth session of meetings of ECLA (Economic Commission for Latin America) in April 1969. ^{78/} After a brief analysis of the Cuban process in the period 1959-1963, the document presents the development strategy for the decade 1970-1980. It is a specific development strategy whose implementation is only possible to the extent that the achievement of the sixties allowed the fulfillment of the "indispensable requirements" for overcoming underdevelopment: the elimination of external economic and political relations of dependence and the transformation of internal structures. The internal transformation consists mainly of a change in the system of property which allows the State the use and the control of the strategic sectors of the economy, of the natural resources, and of foreign trade. ^{79/} When this requirement has been fulfilled, the major obstacle to overcome -in accordance with the report- will be the low technical and cultural level of the population, which impedes a rapid growth in productivity. At the same time this rapid growth requires high rates of investment. However, it is deemed that "the diffusion of knowledge, the change of habits and attitudes, and the cultural development required for a rapid assimilation of modern technology and the qualitative transformation of the economic apparatus" are the most complex tasks of this process. ^{80/} In the Cuban situation this cultural and technological change of the population is facilitated by the redefinition of the relations of man with society, "which must reflect themselves in such evident things as education, and in others, not so obvious, as those social services which liberate women from domestic slavery, and mechanization as a means to eliminate the heaviest physical work, even in the solution to the problems of distribution and equal access to the benefits of progress". ^{81/} It should be borne in mind that, by redefining man's relation to society, the revolutionary ideology disqualifies dominant motivations in capitalist society which are oriented towards individual nobility in the social structure, and on the contrary exalts those motivations which orient towards the achievement of collective goals by means of solidary actions.

In regard to technology, it is stated that in order to achieve accelerated growth, it is necessary to evolve as rapidly as possible towards investments of high productivity, concentrating them mainly in those projects with long-run effects, which will permit competition in the international market, and produce the necessary foreign exchange. ^{82/}

The agricultural sector continues to be the "crucial pivot" of development policy, due mainly to its capacity for generating great volume for exports. In the first stage, industrial development will be subordinated to that of agriculture,

^{78/} "Report of the Cuban Delegation to ECLA's Thirteenth Session," Lima, Peru, 1969; in Economía y desarrollo, No. 1, January-March 1970.

^{79/} Ibid., p. 76.

^{80/} Ibid., p. 77.

^{81/} Ibid.

^{82/} Ibid., p. 78.

through the performance of a double function: to provide inputs, fertilizers and agricultural equipment, and to process agricultural raw materials. In a later stage, when the qualified labour force has been formed and the limitations of foreign trade solved, it will be possible to have "a new strategic movement in industry" towards diversification and expansion. This strategy implies that "agricultural development will have to move rapidly into an intensive phase of high productivity, which can guarantee the availability of labour force for the rest of the economy". 83/

One can foresee important effects on fertility resulting from the implementation of this strategy. The emphasis in the first stage on agricultural development through technological modernization implies a general modernization of the rural areas with the transfer of skilled urban labour to the countryside and its consequential impact on reproductive behaviour. The second stage, instead, implies a movement of the excess labour from agriculture to urban industry. One can expect that this rural-urban process will also have a depressive effect on fertility.

Let us discuss now the sectorial policies, their probable effects on fertility and the possibilities open for proposing population action programmes.

2.3.2. Education: The raising of general educational levels and the democratization of education were important tasks for the Cuban Government from the inception of the revolution. In 1959, the first year of revolutionary rule, the enrolment in primary school had already increased by 104 per cent with respect to the year before, reaching to 1,232,000 children. Enrolment in secondary schools increased by 282 per cent, reaching 83,800 students. The same increases were shown in technical and commercial schools. 84/ Great importance was given to scholarship programmes. One of them, for courses in sewing and basic housekeeping for peasant women, is notable for its modernizing impact on this population. In 1961 alone 14,000 scholarships were assigned for this purpose. In those years Cuba allocated about 5 per cent of its national income and 30 per cent of the budget to the Ministry of Education. 85/ Adult education was a high priority task. The great campaign against illiteracy was launched in 1961. One hundred and fifty-six thousand volunteers, led by 32,000 teachers, were able to practically end illiteracy, reducing it from 23.6 per cent to 3.9 per cent. 86/ The next task was to raise the educational level of workers. In 1968 more than 400,000 workers and peasants had completed primary school. 87/

83/ Ibid., p. 81.

84/ Ernesto Che Guevara, "Address to the Conference of the OAS Economic Social Interamerican Council", op. cit., p. 433.

85/ Ibid.

86/ Ibid.

87/ "Report of the Cuban Delegation to ECLA's Thirteenth Session", op.cit., p.72.

With respect to rural areas, efforts were directed to the development of primary education. Between 1959 and 1969 these efforts resulted in an increase of 150 per cent in terms of schools, 248 per cent in the number of teachers, and 178 per cent in students, total enrolment reaching 602,000. 88/

The course of educational development in the seventies follows the direction set in the period before. Special emphasis is given to the expansion of higher education with a projected increase from two thousand graduates in 1970 to ten thousand in 1980. 89/

In the field of secondary education, the programme that shows most originality and which most lends itself as a possible PAP is that of the school in the countryside. This programme was preceded by the plan of the school to the countryside, consisting in the incorporation of students and teachers from high schools and universities into agricultural activities, for a period ranging from one-and-a-half to three months each year. In 1967-68 more than 200,000 students joined this programme. 90/

The new programme of the school in the countryside is more drastic and ambitious. 91/ It consists of the establishment in the rural areas of a great number of coeducational secondary schools which combine study with the agricultural work of the students.

Agricultural activities (3 hours daily) are aimed at developing and exploiting plantations of citrus trees, coffee, pineapples or fruit trees. These are crops which require many permanent workers, but do not imply heavy work, such as rice or sugar cane. From an educational point of view, this plan is based on the principle set by Fidel Castro as follows: "The aspiration for universal education and the universalization of education, including higher education, has been stated as a principle. But that principle has a sine qua non requisite, and that is the habit and elementary duty of all of society to participate, from a certain age on, in productive activities, and not to create, in fact this separation between manual and intellectual work". Together with the pedagogic objective there exists a stated economic goal. "We cannot go on expanding these social services, if each

88/ "Report of the Cuban Delegation to the Fifteenth Session of the FAO Conference", Rome, 1969, Economía y Desarrollo, No. 1, January-March 1970, p. 149.

89/ "Report of the Cuban Delegation to ECLA's Thirteenth Session", op. cit., p. 91.

90/ Ibid., p. 73.

91/ See Fidel Castro, "Inauguración de la secundaria básica Ceiba Uno Enero 7 de 1971", in Ediciones COR No. 2; and Fidel Castro, "Inauguración de la secundaria básica en el campo 14 de junio, Isla de los Pinos, June 29, 1971", in Ediciones COR No. 6.

of the steps we take is not closely linked to productive activities", said Castro, 92/ and he then estimated that one of these schools, with 500 students, would have the capacity to look after 500 hectares of citrus trees counting, of course, upon technical management, machinery and some permanent workers. It was Castro's opinion that this plantation at full capacity could produce the equivalent of \$2 million per year.

The schools in the countryside would give a secondary education to the local people and also to an important part of the urban population. An interesting case is that of the Isle of Pines, 90 kms, away from Havana. When Castro inaugurated the first school in the countryside on that island (June 1971), he estimated the capacity for citrus plantations at 3,000 caballerías (40,680 hectares). For its exploitation at full capacity in 1980, it would require 30,000 to 35,000 students. Since the high school students from the island would not be more than 5,000 or 6,000, from 25,000 to 30,000 youths would have to come from Havana to work and study there. These young people would not lose contact with the city since they could spend their weekends at home.

At the national level, Castro plans for the end of this decade a goal of 1,200 secondary schools in the countryside with "a capacity for 700,000 youths who would be getting their education in an integral way and participating in the creation of wealth for the people". 93/

The implementation of this programme could result in a decline in the rates of rural fertility because of:

- (1) the raising of the school level of rural children, which in the short run could influence the fertility of the present population of reproductive age due to the lesser chance of using children for economic ends, and in the long run the reproductive behaviour of the same children through new values and fertility patterns which are usually associated with a higher level of education; and
- (2) the introduction of urban culture in the countryside by the formal and informal actions of these schools through their teachers and students of urban origin.

Undoubtedly, a programme of this type constitutes a PAP because of its impact on social and economic development, and by its predictable effects on rural reproductive behaviour. However, its demographic efficacy could be increased if regular channels of communication between the schools and the local rural population could be established, and if the students could be given an adequate sexual education which would include contraceptive information. In this respect, it should be noted that the first Congress on National Education and Culture (1971) recommended the introduction of sexual education at the high school level. 94/

92/ Ibid.

93/ Ibid.

94/ "Declaración del primer Congreso de Educación y Cultura, Cuba, Abril 1971", in Edic. COR, #2.

2.3.3. Health: The expansion of health services has had timing and orientation similar to those described for education. Between 1958 and 1967, the resources allocated to this sector increased nine times. The lack of professionals and technicians was more serious in part because of the emigration to the U.S., and it forced the number of medical schools to be increased from 1 to 3, and nursery schools from 6 to 13. In 1958 Cuba had 57 hospitals; in 1969 there were over 200. Polyclinics, unknown until then, had reached 260 that same year. Furthermore, medical assistance became free, thus allowing access to it of low-income sectors. 95/

The expansion of these services was directed mainly towards the suburban and rural zones, which until then had practically lacked these services altogether. For this purpose the Rural Medical Service was created; in 1969 it had built 48 rural hospitals, with 1,350 beds, and created 88 medical posts. 96/

Given its orientation to sectors that are strategic from a fertility point of view, this health policy is reason for expecting a raising of levels of sanitary hygiene and culture, accompanied by an increase in the preventive approach towards health matters, all of which facilitates the transition to controlled reproductive behaviour.

Two specific programmes or measures could be conceived as PAPs. First, there are the rural polyclinics. These are medical posts built close to the boarding schools already described. They are thought of as centres for gathering together the scattered rural population for whom houses are built in the neighbourhood of the schools. In this way, small new settlements are established which increase the efficient use of medical resources and which are also exposed to the influence of the educational centre located in the same place.

Secondly, one should mention the people's health committees, which are presided over by an M.D. and composed of representatives from peasant organizations. These committees facilitate the mobilization and active participation of the peasants themselves in vaccination programmes, health education, environmental sanitation, etc. 97/ Through them, it is possible to increase the voluntary participation of peasant women in extra-domestic health activities, with a modernizing impact both on those who participate actively, as well as on those who receive the services. If motivation towards birth control has been generated by other factors, these committees can facilitate to an extraordinary degree the diffusion of education and family planning services.

95/ "Report of the Cuban Delegation to ECLA's Thirteenth Session", op. cit., pp. 70-72.

96/ "Report of the Cuban Delegation to the Fifteenth Session of FAO", op. cit., pp. 144-145.

97/ Ibid.

2.3.4. Women in the Labour Force: When we discussed development strategy, we showed how the incorporation of women into general economic activity is a value of socialist ideology. There are, besides that, economic reasons for aiming at this incorporation. In the development strategy proposed for the seventies, the major rise of employment -3.6 per cent per annum- takes place in the first five years. "Given that the growth rate of employment is greater than the growth rate of population, this implies the massive incorporation of the labour reserve, especially of women". 98/

Table 6 shows the recent conditions of participation in economic activity and the projections (or goals) for the end of the decade. The smaller participation of males runs together with the lengthening of the period of study. Between 1968 and 1980, women's participation more than doubles.

Particularly in the rural sector the needs of national defence and the creation of compulsory military service, together with the later incorporation of rural children into the labour force due to lengthened schooling (scholarships and boarding schools), have resulted in a scarcity of labour force. As an answer to this problem, more than 100,000 women entered into productive activities and services. It was expected that this pace was going to be maintained in the next four years. 99/ A depressive effect on fertility can be expected from this policy of massive incorporation of women into economic activity.

In the analysis of the Cuban general strategy and several of its sectorial policies, we have focused on those strategic lines and on those programmes which would lead to a decrease of fertility. However, one must take into account that some of the changes brought about by the revolutionary process could act in the opposite way, either stimulating fertility, or diminishing the effect of factors which would lead to a small family. Among the latter we could cite, as an example, the lower direct cost of the child resulting from the extension of free services (education, health, vacations, arts, and sports), and his lower opportunity cost resulting from a controlled distribution of scarce resources.

It is clear that modifying these factors could contribute to a reduction of fertility. Nevertheless, it must be considered that often they imply the realization of values intrinsic to socialist ideology or they are essential elements of that type of socio-economic formation. In these cases any attempt to modify or to suppress said factors would have a very low political viability.

98/ "Report of the Cuban Delegation to ECLA's Thirteenth Session", op. cit., p. 85.

99/ "Report of the Cuban Delegation to the Fifteenth Session of FAO", op. cit., p. 135.

3. CONCLUSION

3.1. Foreseeable effects of development strategies on fertility in Brazil, Chile and Cuba

The development strategies of Cuba and Chile, although elaborated in different political contexts, are both oriented toward the elimination of factors determining internal structural heterogeneity. Structural changes, particularly agrarian reform, and the eminently redistributive character of the development goals in these two countries, lead to the belief that, to the extent that these strategies are implemented, lower income and lower-educational strata will substantially improve their standard of living, with a consequent change in their reproductive behaviour.

A common characteristic to both strategies which may have a particular influence on the behaviour of the rural population is their orientation towards the preferential development of the relatively backward regions within each country. Thus an increasing influence of urban sectors upon predominantly rural ones may be expected which, in addition to structural reforms in the agrarian sector, should lead to an increasing modernization of the rural population, thus creating the supra-threshold conditions for the adoption of controlled reproductive behaviour and for smaller family size preferences.

Finally, it should be underlined that both strategies place special emphasis on adult education and on the growing incorporation of women into the labour force, changes which also should contribute to an increasing modernization of reproductive behaviour, with a corresponding fall in fertility.

However, there are important differences in the strategies of Cuba and Chile affecting the influence which the above factors may have on reproductive behaviour. In the Cuban case the predominance of long-term goals and motivations based on revolutionary morality leads to the realization of these goals through collective actions. In the Chilean case, due to the political system itself, short-term goals predominate. In addition, this society continues to be consumer-oriented. This leads to striving for individual nobility and the desire of particular groups to make immediate economic gains in their own favour.

These differences result from the different political systems of Cuba and Chile, from the different degrees of political mobilization and ideological transformation of the masses, as well as from the different stages attained within the process of transition towards socialism. Because of these differences, concepts such as female participation in the labour force or costs of a child do not have the same connotation, and their meaning may also vary with regard to reproductive behaviour.

The Brazilian development strategy shows a very marked contrast with those of Cuba and Chile. It proposes as its central objective the maintenance of a rapid

growth of the national product through the preferential and accelerated development of the more dynamic sectors and regions from the economic point of view. Objectives of a redistributive nature have clearly a secondary priority and are proposed provided that they do not hinder the expansion of dynamic sectors.

From the implementation of this neocapitalist development strategy may be expected an accentuation, or at least the maintenance, of structural heterogeneity, without substantial modifications of living conditions of urban and rural marginal sectors in the short or intermediate run. However, the reproductive behaviour of these sectors may follow different courses. With regard to the rural sectors, it may be expected in the intermediate run that the development strategy will not lead to important changes in their reproductive behaviour. However, in the long run, if a rapid and sustained development of the more dynamic poles is achieved, the progressive expansion of capitalist forms of production in the rural sector is to be expected incorporating an even larger factor of the rural population, with consequent improvement of their living conditions and a modernization of their reproductive values and patterns. Thus supra-threshold levels will be attained, making possible the progressive adoption of controlled reproductive behaviour. In urban areas, on the contrary, although marginality conditions may be maintained for an important segment of the population, it is to be expected that the dysfunctional nature of high fertility in this environment will lead to a decrease in fertility through abortion or through contraceptive practice induced by family planning programmes.

3.2. Population action programmes (PAP)

The analysis of the social sectorial policies in Brazil, Chile and Cuba has allowed us to underline some development programmes which at the same time would have a depressive effect on fertility and which could be used as population action programmes. Among these special mention should be made of the Compulsory Social Service for Women (Chile), the programme of schools in the countryside (Cuba), and the low-income housing programmes (Chile).

As was shown throughout the analysis, political viability of these or other PAPs and their demographic efficacy will vary greatly according to the characteristics of the social and economic context, and the development strategy of each country.

Table 1
SOME DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS
OF 10 COUNTRIES IN LATIN AMERICA

	Volume		Density		Structure		Growth		Growth		Expectation of life at birth 1969 _{a/}	
	Estimated Population 1969 (in millions)	Percentage of urban population 1965	Number of persons per Km2 _{a/}	Number of persons per Km2 of cultivable area 1969 _{a/}	Percentage under 15 years of age 1969 _{a/}	Dependency rates (percentage) 1969 _{a/}	Birth rate (per 1000) 1969 _{a/}	Death rate (per 1000) 1969 _{a/}	Population growth rate (per 1000) 1969 _{a/}	Urban population growth 1955-1965 (percentage) _{a/}		Rural population growth 1955-65 (percentage) _{a/}
	(A)	(F)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(G)	(G)	(A)
Latin America	265,9	50,9	13	47	42	85	39	10	29	-	-	61
Argentina	23,7	76,4	8	16	29	56	21	8	15 ^{c/}	24,1	10,2	68
Bolivia	4,5	32,5	4	32	43	84	43	19	24	46,9	15,7	46
Brazil	90,7	44,0	11	56	42	84	38	9	29	73,7	19,5	61
Chile	9,5	67,4	13	73	39	78	33 ^{b/}	10	23 ^{b/}	37,5	10,5	62
Costa Rica	1,7	32,5	34	116	48	106	47	8	39	85,1	28,1	67
Cuba	8,2	55,8 ^{d/}	71	139	34	65	27	7	20	22,0 ^{k/}	25,0 ^{k/}	-
Guatemala	5,1	29,2	47	244	46	94	45	17	28	62,6	21,6	49
Mexico	48,9	58,3	25	43	46	99	43	9	34	55,0	16,5	63
Peru	13,2	44,1	10	62	45	93	42	11	31	81,2	13,9	59
Dominican Republic	4,1	32,6	85	318	47	99	47	12	35	82,0	26,1	59

- Sources: (A) Department of Social Affairs, Pan-American Union, Secretariat General of the Organization American States, OAS, Washington, D.C., 1969; Datos básicos de población en América Latina.
 (B) Organization of American States (OAS), Inter-American Statistical Institute, América en cifras, 1970.
 (C) Ibidem, Table, 501-42.
 (D) Ibidem, Table 501-40.
 (E) ECLA, Estudio Económico para América Latina - 1968
 (F) CELADE: Boletín Demográfico, número 2, Vol. III.
 (G) Calculated on the basis of: ILPES. Antecedentes cuantitativos referentes al desarrollo de América Latina - noviembre 1966.
 (H) Population Reference Bureau, Cifras de Población Mundial 1971, (june 1971). Data provided by the International Bank for Reconstruction and Development to the PRB.

Table 1 (continued)

	Income			Education			Health	
	Per capita gross national product (in dollars) 1968 (H)	Growth rate of the per capita GNP (Average annual rates) 1950-60 (E)	Percentage of illiterates (in the population aged 15 and over) (B)	Primary school enrollment in relation to school age population (C)	Primary school retention rate (percentage) f/ (D)	Hospital Beds per 10 000 of population (A)	Daily calories per inhabitant (A)	
Latin America	339 ^{d/}	-	-	-	27 (1965)	31 ^{e/}	2 610 ^{b/}	
Argentina	820	1,2	1,1	8,6 (1960)	74,6 (1968)	42,3 (1961-67) ^{g/}	51 (1962)	2 660 (1963-64)
Bolivia	150	- 1,6	2,9	67,9 (1950)	52,7 (1968)	20,0 (1963-68) ^{g/}	24 (1966)	1 810 (1967-63)
Brazil	250	2,6	1,3	38,9 (1960)	74,2 (1964)	25,0 (1959-65) ^{h/}	36 (1965)	2 950 (1963-65)
Chile	480	1,2	2,4	16,4 (1960)	65,4 (1964)	42,1 (1962-67)	43 (1964)	2 370 (1963-64)
Costa Rica	450	3,2	2,6	15,6 (1963)	64,4 (1966)	49,3 (1964-69)	40 (1967)	-
Cuba	370	-	-	22,1 (1963)	79,1 (1965)	-	55 (1965)	-
Guatemala	320	0,0	3,0	62,1 (1964)	31,8 (1965)	18,6 (1964-69) ^{i/}	26 (1964)	1 994 (1965)
Mexico	530	2,8	2,8	34,6 (1960)	62,3 (1968)	26,9 (1963-68)	26 (1968)	2 640 (1963-64)
Peru	380	2,7	3,0	38,9 (1961)	65,1 (1965)	-	25 (1966)	2 240 (1962-64)
Dominican Republic	290	2,4	0,6	35,5 (1960)	52,0 (1967)	17,1 (1965-70)	29 (1966)	2 230 (1964-65)

a/ Estimate.

b/ More recent data show a greater decrease to that assumed in this estimation, with a birth rate of approximately 28 per thousand and a growth rate of 18 per thousand.

c/ Including international migration.

d/ Average for 19 countries in 1966.

e/ Weighted average for 14 countries.

f/ The retention percentage results from dividing the number of students who passed their final year of primary education, in a given year, by the number who entered first grade in the year in which those graduating entered primary education.

g/ Rural retention during the same period is barely 5,2 per cent.

h/ Data taken from source (A).

i/ Rural retention was in the same period a bare 3,7 per cent.

j/ Data for 1960. Source: United Nations, *Crecimiento de la población urbana y rural del mundo, 1920-2000*, Nueva York, 1970, Table 44.

k/ Growth between 1950-1960. Source: *idem* to j/.

TABLE 2

DISTRIBUTION OF INCOME IN LATIN AMERICA

Income Groups	Percent- age of Total Income	Average Income (Regional Average = 100)	Average Income per Inhabitant (in dollars) ^{a/}
Poorest 20 per cent	3.1	15.5	60
30 per cent below the median	10.3	34.0	130
30 per cent above the median	24.1	80.0	310
15 per cent below the highest 5 per cent	29.2	194.0	750
Highest 5 per cent	33.4	80.0	2,600

Source: Economic Commission for Latin America. Estudio Económico de América Latina, 1969, cuadro III-1.

^{a/} These values apply to 1965, but are expressed in terms of dollars in 1960.

TABLE 3
REGIONAL AND URBAN-RURAL COMPOSITION, COMBINED, OF THE
STRUCTURE OF INCOME IN BRAZIL
(Percentages)

	Composition of the different income groups					
	All the income units	Poorest 20 per cent	30 per cent below the median	30 per cent above the median	15 per cent below the highest 5 per cent	Highest 5 per cent
<u>Brazil</u>						
Areas of high incomes (South and 40 per cent of the East) <u>a/</u>						
Non-agricultural	33.0	10.9	14.0	47.2	68.2	66.0
Agricultural	17.6	8.9	22.2	23.0	12.8	7.5
Areas of median income						
Non-agricultural	3.2	2.0	2.2	5.0	4.2	4.8
Agricultural	4.1	2.0	5.9	4.1	2.5	1.9
Areas of low income (North-east and 60 per cent of the East) <u>a/</u>						
Non-agricultural	17.8	24.8	18.7	13.3	10.3	17.1
Agricultural	24.3	51.4	37.0	7.4	2.0	2.7

Source: Economic Commission for Latin America. Estudio Económico de América Latina, 1969. Cuadro 111-16.

a/ The Eastern area of Brazil has been divided into area of high and area of low income on the supposition that 40 per cent of the population of the East is in the high-income area, around the city of Rio de Janeiro -distributed among sectors and each sector among the different income groups- similar to that of the southern region. It was assumed that the remaining 60 per cent would be located to the North of this area with a similar distribution to that of the Northeast. Adjustments were made arbitrarily in order that estimates should be consistent with figures referring to the Eastern region as a whole. Consequently, figures in this table should be considered arbitrary approximations, being presented with the sole purpose of illustrating the subject discussed in the text.

TABLE 4
DENSITY, URBANIZATION AND PRODUCT PER CAPITA IN
SOME COUNTRIES OF ASIA

Country	Inhabi- tants per sq. km. (1969) (A)	Percentage of population in urban clusters of 20,000 or more inhabitants (1960) (B)	National product per capita (1968) (C)
Ceylon	187	12	180
South Korea	316	29	180
China	99 (D)	13	90
India	164	14	100
Pakistan	118	10	100

- Sources:
- (A) Demographic Year Book, 1969. United Nations.
 - (B) United Nations, Social and Economic Affairs Department: Crecimiento de la población y rural del mundo, 1920-2000. Nueva York, 1970.
 - (C) Population Reference Bureau. Cifras de población mundial, 1971.
 - (D) Calculated supposing an average annual growth rate of 2.2 per cent for the period 1950-1969, and based on an estimation of 170 inhabitants per square mile in 1950, made by Li Fu-ch'un, "Report at the Sixth National Conference on Statistical Work". *Tung-chi Kung-tso*, XXII, November 29, 1957; mentioned in Pi-Chao Chen, "The Political Economics of Population Growth, The Case of China". *World Politics*, Vol. 23, No. 2.

TABLE 5
ESTIMATED INCOME DISTRIBUTION IN BRAZIL, 1960 AND 1970

Groups	Percent- age of population	Partici- pation in income (percentage)		Absolute level of income per person (in dollars)	
		1960	1970	1960	1970
Upper class	1	28	30	8,400	12,000
Upper middle class	4	16	20	1,200	2,000
Urban middle class	15	21	22.5	420	600
Working class	30	20	15.0	200	200
Rural workers, urban self-employed, marginals	50	15	12.5	90	100

Source: Taken from Tavares, C.M., and J. Sierra (see 17/); source for 1960 data: Estudio de la distribución del ingreso en Brasil, CEPAL, Río de Janeiro, 1967. Source for 1970 data: author's estimate.

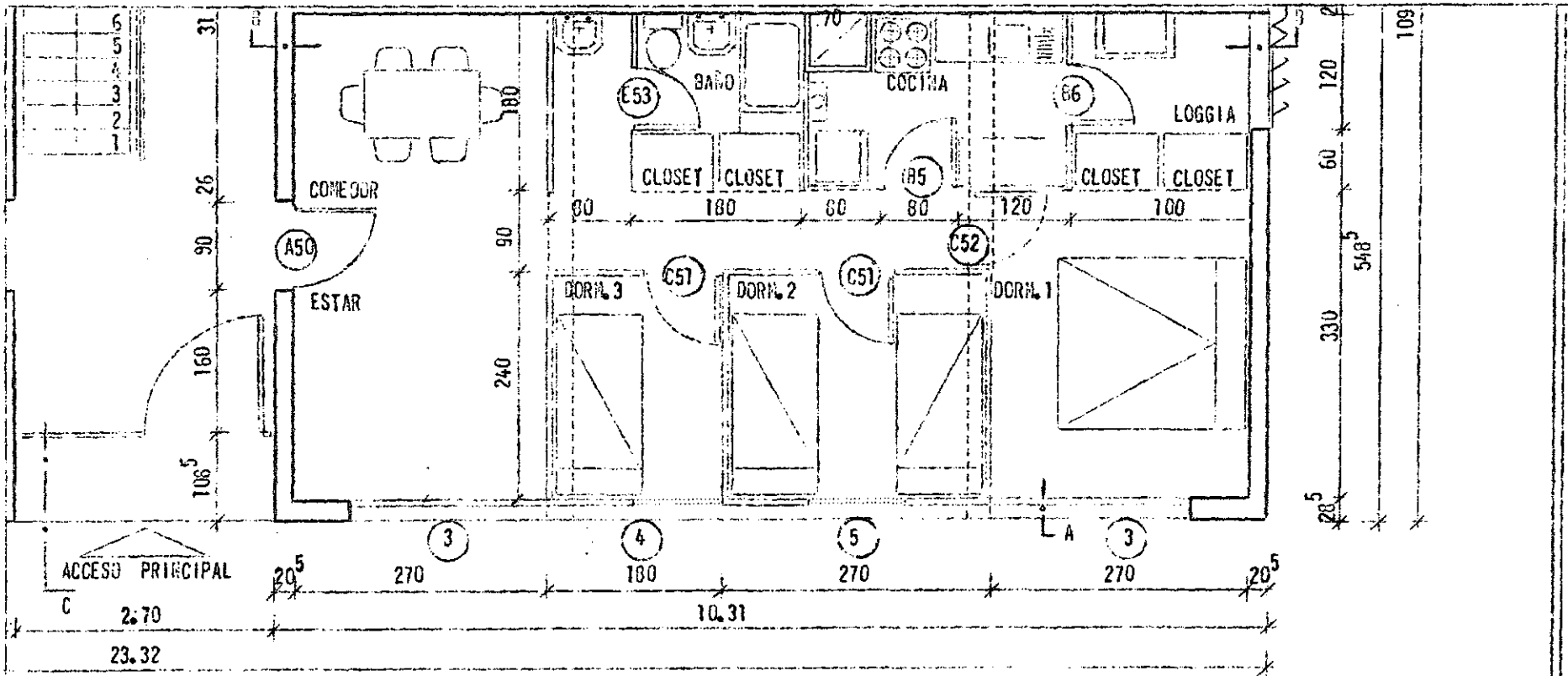
TABLE 6

EVOLUTION OF OCCUPATION IN CUBA: 1968-1980
(Proportion of workers in relation to total working-age population)

	1968	1970	1980
Men	.992	1.025	.860
Women	.200	.348	.467
TOTAL	.613	.702	.673

Source: Report of the Cuban delegation to ECLA's Thirteenth Period of Sessions, Lima, Peru, 1969.

Economía y Desarrollo No. 1, January-March 1970, p. 85.



Nota:

TODAS LAS MEDIDAS CORRESPONDEN A OBRA TERMINADA.

G. Wijnant E. JEFE DEPTO.	CORPORACION DE LA VIVIENDA DEPARTAMENTO DE CONSTRUCCION	
J. Quintela R. JEFE SUBDEPTO.	SUBDEPARTAMENTO DE DISEÑO CHILE	
O. Sepúlveda I. JEFE SECCION DISEÑO	PLANTAS Y	

